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A New View on Patient Safety: Data as Power

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DISCLAIMER: The views and opinions expressed in this presentation are those of the author and do not necessarily represent official policy or position of HIMSS.

Conflict of Interest Disclosure

Michael Datena, MPA, RPh
Has no real or apparent
conflicts of interest to report.

Learning Objectives:

1. Identify a patient safety incident in health care facility
2. Describe how to collect pertinent data about patient safety events
3. Explain how to input pertinent data into a secure, web-based application

DoD Patient Safety Program (PSP)

- A comprehensive, centralized program with the goal of establishing a culture of patient safety and quality within the MHS
- Established under the 2001 Department of Defense Instruction (DoDI) 6025.17
- DoD PSP identifies and reports actual and potential problems in medical systems and processes and to implement effective actions to improve patient safety and health care quality throughout the MHS

Our Mission is to promote a culture of safety to eliminate preventable patient harm by engaging, educating and equipping patient-care teams to institutionalize evidence-based safe practices.

Our Vision is to support the military mission by building organizational commitment and capacity to implement and sustain a culture of safety to protect the health of the patients entrusted to our care.

The Military Health System Quadruple Aim

Readiness

Ensuring that the total military force is medically ready to deploy and that the medical force is ready to deliver health care anytime, anywhere in support of the full range of military operations, including humanitarian missions.

Experience of Care

Providing a care experience that is patient and family centered, compassionate, convenient, equitable, safe and always of the highest quality.



Population Health

Reducing the generators of ill health by encouraging healthy behaviors and decreasing the likelihood of illness through focused prevention and the development of increased resilience.

Per Capita Cost

Creating value by focusing on quality, eliminating waste, and reducing unwarranted variation; considering the total cost of care over time, not just the cost of an individual health care activity.

What is a Patient Safety Event?

- PSR focused on patient safety events
- The DoD 6025.13-R Regulation* defines different types of patient safety events:
 - **Near Miss** - *“Any process variation or error or other circumstance that could have resulted in harm to a patient but through chance or timely intervention did not reach the patient or did not harm the patient.”*
 - **Adverse Event** - *“Occurrences or conditions associated with care or services when they cause unexpected harm to a patient during such care or services. These may be because of acts of commission or omission.”*
 - **Sentinel Event** - *“Unexpected occurrences involving death or serious physical or psychological injury or risk thereof.”*
- Not currently reported in PSR
 - Staff safety events
 - Visitor safety events

Why is Reporting Important

- It's important – to keep our patients safe
 - 44,000 - 98,000 deaths/year (IOM 1999)
 - \$17 - \$29B annually Lost income, production, disability and healthcare costs
 - Over half healthcare costs
 - 1.5M preventable adverse drug events annually in U.S. (IOM 2006)
 - \$3.5B annual estimate

Reporting and Relevance to the MHS

Military Health System*

- 9.6 million beneficiaries worldwide
- Team of over 130,000 medical professionals
- Direct Care Military Treatment Facilities (MTFs)
 - 59 Acute care hospitals; 1,000,000 inpatient days
 - 360 Outpatient Clinics; 100,000 visits per day
 - 290 Dental Clinics; 15,000 visits per day
 - 150,000 30-day equivalent prescriptions filled per day

Until now, the MHS has not had a robust systematic collection of data on events resulting in:

- Incomplete system-wide tracking and trending
- Difficulty in identifying system quality improvements
- Inadequate capacity for gleaning/analyzing actionable information from patient safety event reporting due to non-standardized, paper-based data collection

Patient Safety Reporting (PSR)

- PSR responds to the 2001 National Defense Authorization Act directing the Secretary of Defense to establish a patient care error reporting and management system to:
 - Study the occurrences of errors in the patient care provided under chapter 55 of Title 10 United States Code
 - Identify the systemic factors that are associated with such occurrences
 - Provide for action to be taken to correct the identified systemic factors
- Department of Defense Regulation DoD 6025-13R, Quality Assurance
 - Prescribed procedures for a dedicated program focused on prevention and on improving medical systems to overcome preventable errors

PSR Application Mission Critical Functions

Critical Mission Function	Description
Event Capture	PSR must capture adverse events and near-miss events, as well as events that pose a risk to patient care.
Identify Demographics	PSR must accurately store patient demographic data for adverse and near miss events.
Confidentiality	PSR shall prevent unauthorized access to event data.
Data Aggregation	PSR must aggregate data to support analysis.
Reports	PSR must display and print graphical outputs and reports.

PSR Product Description

- Patient Safety Reporting (PSR) is a Common Access Card (CAC) enforced, Commercial Off-The-Shelf (COTS), web based Tri-Service data management system, centrally hosted at Defense Information Systems Agency (DISA), that will provide Military Treatment Facilities (MTFs)
- The application has been used in large healthcare organizations – used by over 75% of the National Health Service in the U.K., several provinces in Canada, and Australia
- The application has been used for over 20 years experience in patient safety/risk management and is used worldwide, serving a population of more than 50 million patients

Capabilities

- **Broadly applicable:** Commercial Off-the-Shelf (COTS) reporting system
- **Maintains confidentiality:** Supports anonymous reporting
- **Easily Assessable:** Web-based application
- **Secure:** Supports role-based security; CAC enforced
- **Simple to use:** Intuitive point and click, drop downs, text for the user
- **Promotes information sharing:** Automates the non-standardized paper-based systems

Benefits

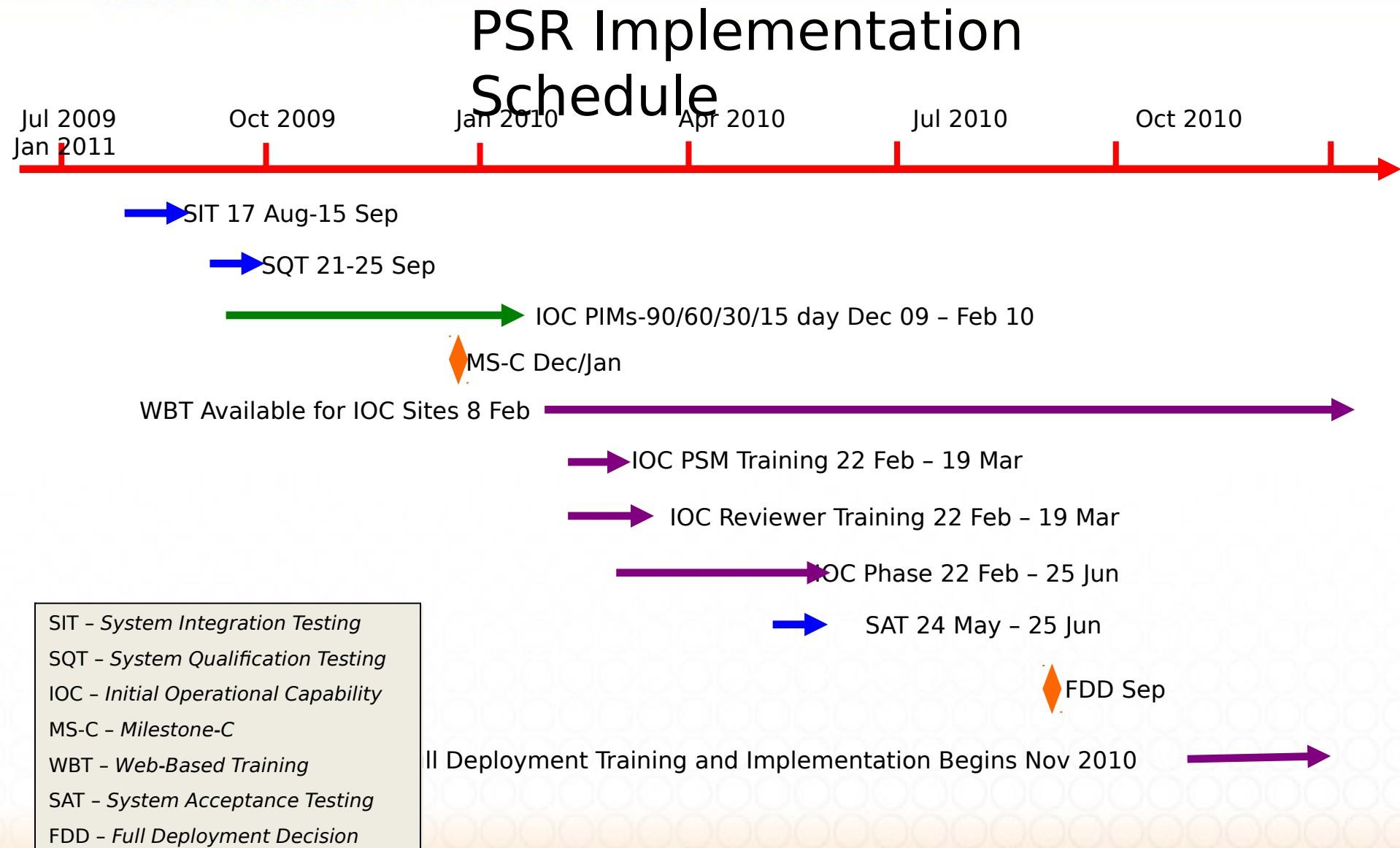
- **Helps improve patient safety**
 - Promotes depth of information necessary for the proactive improvement of patient safety
 - Supports the local, Service and enterprise-wide safety improvement strategy through systematic methodologies and comprehensive analytic tools
- **Enables greater ability to learn and share safety information**
 - Consolidates both medication and non-medication events in one tool
 - Standardizes data capture and taxonomy
 - Centralizes capture, collection and aggregation of event level data
 - Begins alignment with AHRQ Common Formats
- **Promotes fiscal responsibility**
 - Facilitates cost avoidance by reduction of preventable and avoidable health care events
- **Addresses DOD and Congressional Requirements**
 - Responds to the 2001 National Defense Authorization Act (NDAA) and DoD 6025.13

PSR Acquisition Lifecycle

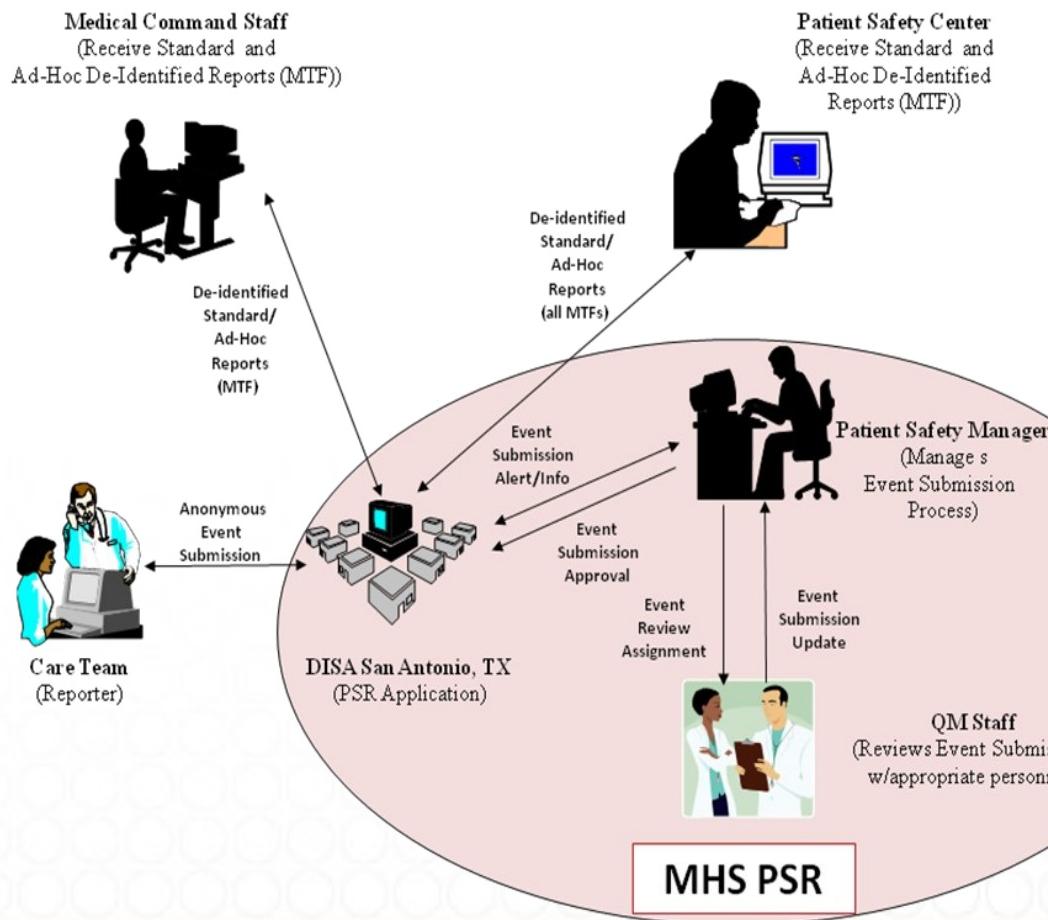
- ✓ Pre-Systems Acquisition Phase
 - ✗ Concept Decision and Refinement
- ✓ Systems Acquisition Phase
 - ✗ Milestone B – Approve Acquisition Strategy
 - Analysis of Alternatives – Commercial Off-the-Shelf (COTS)
 - Source Selection Board – Recommended Datix Incident Management software - *September 2008*
 - ✗ System Integration and Demonstration Phase
 - Integrator configured Datix to meet Functional, Information Assurance and System Security Requirements
 - Independent Test Team conducted System Integration Test
 - Functional community conducted System Qualification Test

PSR Acquisition Lifecycle (cont.)

- ✓ System Acquisition Phase – Initial Operational Capability
 - ☒ Milestone C – Limited Deployment – *April - August 2010*
 - 9 MTFs – 3 per Service (Army, Navy, Air Force)
 - Independent and Government Test teams completed Operational Test
 - ☒ Full Rate Deployment Decision – September 2010
 - Full deployment and training to all MTFs
 - Began in Nov 2010
- Sustainment Phase – Full Operational Capability – *Target completion June 2011*
 - Configuration changes – i.e. drop down list revisions; additional fields
 - Product upgrades
 - Security Patches



Information Flow



PSR Process



Typical Event Flow



Report Event : Login : Register

Patient Safety Event Reporting Form
Reporting is anonymous unless reporter detail is completed

A * indicates a required field.

Click the ? icon for help with a particular field.

Click the ▾ button to view and select from the list of available options for that field.

Once submitted the event report is locked. User may not save draft report.

 Issues with the PSR system should be reported to the MHS Help Desk:
 Send email to mhssc@tempo.osd.mil or mhs_remedy@tempo.osd.mil or call 1-800-600-9332.

Event details

This section asks you to detail When, Where and What happened.

* Event date (mm/dd/yyyy)



* Event time (24 hour local time)



Discovery date (mm/dd/yyyy)



* Service Affiliation

Please select the Service where the event occurred



* Service Region



* Parent MTF



* MTF



* Department/Division/Directorate



* Clinic/Service

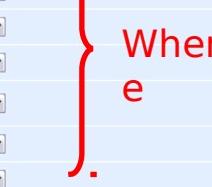
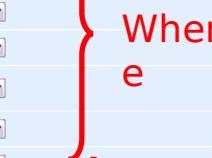


* Location Type



* Event description

Enter facts, not opinions. Do not enter names of people

 Selecting
Down Arrows
Displays Pick
lists


When

What

* Immediate action taken

What actions were taken to prevent patient harm or lessen the impact?

What do you think caused the event?

Sample PSR Report For

Reporter's Recommendations

 What would prevent this type of event occurring in the future?
ABC
Patient Status

Was the provider notified?

Was the patient in transit?

Answering "Yes"
opens Provider section
Required Information

Answer Yes to all statements that apply - doing so will cause additional sections of the form to appear.

* Was a patient involved?



* Was this a medication event?



* Was equipment/materiel involved?



Are there other people with information on this event?



Are there any documents to be attached to this record?


Details of person reporting the event.

Last Name

First Name

Status

Status detail

E-mail

If you wish to receive an e-mail confirmation please enter your work (.mil) e-mail address here

Telephone

DO NOT PRINT! All information is subject to the Privacy Act of 1974, 5 USC 552 and 10 USC 1102. This is a protected quality assurance document.

Submit Cancel

Optional
Click "Submit"
when finished

Sample PSM Investigator Form

Patient Safety Officer/Manager Event Investigation Form (DIF2)

A * indicates a required field.

Click the ? icon for help with a particular field.

Click the button to view and select from the list of available options for that field.

The system will time out after 10 minutes of inactivity and current information will be lost.

Issues with the PSM system should be reported to the DHS Help Desk:
Send email to mhsic@osd.mil or mhsr@osd.mil or call 1-800-600-9322.

Current record

Name and reference

Location

Details

Medication

Equipment/Material details

Event Classification

Notifications

Investigation

Testers and general e-mail correspondence

PSM Notes

Comments for this event

Print

Printer Friendly

Listings

Exit

New search

Saved queries

Standard Report

Dashboard

Modules

Event Reporting

Actions

Contacts

Admin

Main Menu

The Name is used as a label for the Event record. It is derived from the name of the patient involved: LASTNAME FIRSTNAME.

If there is no patient, then the PSM will enter a name for the event.

* Name

DATIX ID

No ID assigned yet - still in holding area

Approval status

In holding area - not yet reviewed

Form reference

PSR-1645

Reported date

03/08/2010

Opened date

02/04/2011

Handler

Close Event

Event Closed date

Location

* Service Affiliation

AIR FORCE

* Service Region

AIR COMBAT COMMAND

* Parent MTF

355TH MED GRP - DAVIS MONTHAN

* MTF

355TH MED GRP - DAVIS MONTHAN

* Department / Division / Directorate

FAMILY HEALTH

* Clinic/Service

FBI TEAM DIAMONDBACK

* Location Type

Examination room

* Patient Status

Was the patient in transit?

Details

* Event date

(mm/dd/yyyy)
03/08/2010

* Event time

(24 hour local time)
07:30

Discovery date

(mm/dd/yyyy)

This is for training purposes only.

* Event description

Enter facts, not opinions. Do not enter names of people

* Immediate action taken

What actions were taken to prevent patient harm or lessen the impact

* Degree of harm

What do you think caused the event?

Reporter's Recommendations

What would prevent this type of event from occurring in the future?

Was the provider notified?

Root cause analysis?

Sentinel Event?

AAAHC Adverse Incident

Medication

Stage of process

Medication Event Type

Drug Involved

For a faster search enter the first few letter(s) of the drug involved.
Then click the button to select from a list of potential matches.

- Form

- Dose and Strength

- Route

Correct drug

- Form

- Dose and Strength

- Route

Number of times occurred

This is a numeric field to record the frequency of this event - for most occurrences this will be 1

Notes

Equipment/Material details

Product type

Description of problem

Brand name

Current location

Manufacturer

Serial no.

Description of device

Supplier

Service records held by

Model/size

Quantity defective

Date of manufacture

(mm/dd/yyyy)

Last serviced

(mm/dd/yyyy)

Date put in service

(mm/dd/yyyy)

Batch/Iot no.

Outcome code

Event Classification

* Event type

* Event sub-type

* Event detail

Result/Outcome

Sample PSM Investigator Form

Investigation

Investigator(s)

Date investigation started

Action taken Please click on the question mark for examples of action taken.

Date investigation completed

Outcome of investigation

Further inquiry?

Lessons learned Please click on the question mark for examples of lessons learned.

Cost

Risk Assessment Matrix:

Probability of recurrence (likelihood)	Severity on Patient and Facility (consequence)				
	Insignificant	Minor	Moderate	Major	Catastrophic
Almost Certain - Will undoubtedly recur frequently	●		●	●	●
Likely - will probably recur, but is not a persistent issue	●	●	●	●	●
Possible - May recur occasionally	●	●	●	●	●
Unlikely - Do not expect it to happen again but it is possible	●	●	●	●	●
Rare - Do not believe that this will ever	●	●	●	●	●

Risk Assessment Grade:

Feedback and general e-mail correspondence

When sending a message, copy and paste the URL into the body of the message - this will provide the recipient with a direct link to this event.

Recipients Only linked contacts with e-mail addresses are shown.

Additional recipients Enter email addresses of other recipients not listed above. You can enter multiple addresses, separated by commas.

Subject of message Patient Safety Reporting - feedback message (FOUO) (10 USC 1102)

Body of message This is a feedback message from (PSM at Parent MTF) Mike Datas. Incident form reference isPSR-1645.
The feedback is:

Please go to

Message history

Date/Time	Sender	Recipient	Body of Message
No messages			

Causal Factors

The causal and/or contributing factors list includes expertise and information from Evidence Based Design (EBD) principles for the health care built environment, IECAs and FMEAs, human factors and ergonomics, and the National Patient Safety Goals, when applicable.

Causal Factors

- 1. Communication (written and verbal)**
- 1.01 Care plan not followed (e.g. dropped consult)
- 1.02 Distractions-Auditory
- 1.03 Distractions-Visual
- 1.04 Distractions-Spatial (e.g., clutter)
- 1.05 Interruptions-By other staff
- 1.06 Interruptions-By patient
- 1.07 Interruptions-By patient family
- 1.08 Illegible handwriting, insufficient documentation
- 1.09 Product directions not clearly understood, confusing
- 1.10 Read back not performed/inadequate verbal order (NPSG 2.01.01)
- 1.11 Reporting and receipt of critical tests/results not timely (NPSG 02.03.01)
- 1.12 Unapproved abbreviations, acronyms, symbols, dose designations (NPSG 2.02.01)
- 2. Communication: Team Performance**
- 2.01 No or inadequate communication before, during and/or after procedure
- 2.02 No or inadequate double-check
- 2.03 No or inadequate handoff (shift change) (NPSG 02.05.01)
- 2.04 Repeat back not used (NPSG 02.01.01)
- 2.05 Staff to family/other
- 2.06 Staff to patient
- 2.07 Staff to staff
- 2.08 Staff to supervisor
- 2.09 Supervisor to staff
- 3. Built Environment/Facility Design**
- 3.01 Assistive devices not available (e.g., patient lift devices, IV poles)
- 3.02 Bathroom location (e.g., not on headwall)
- 3.03 Clutter, disorganization
- 3.04 Co-location of look-alike items (e.g., selected wrong item)
- 3.05 Distractions-Auditory
- 3.06 Distractions-Visual
- 3.07 Distractions-Spatial (e.g., clutter which limits detection, perception, visibility)
- 3.08 Disrupted, obstructed visual access to patient
- 3.09 Disrupted, obstructed visual access to equipment display
- 3.10 Emergency situation
- 3.11 Flooring as tripping/slipping hazard
- 3.12 Inadequate/crammed space to perform task, access patient, or use equipment
- 3.13 Inadequate/crammed space to perform task to perform team activities
- 3.14 Lack of suitable bed and/or facility
- 3.15 Location of medical supplies/equipment not standardized (e.g., inconsistent equipment/supply location)
- 3.16 Noise
- 3.17 Poor lighting (e.g., glare, insufficient lighting for task)
- 3.18 Railings, grab bars not present (e.g., bathroom, headwall, hallway)
- 3.19 Sink, rub dispenser accessibility/use in room
- 3.20 Wet and/or icy conditions

Current Status

- 63 sites activated through 11 February
- 74 scheduled between now and 30 June 2011
- Patient Safety Managers have access to the Field Services Website
 - Schedules
 - Lessons Learned
 - FAQs
 - Training Materials

Major Implementation Milestones

- Completing and submitting hierarchy
- Determining who will have PSM and Reviewers roles
 - Get them registered
 - Complete Application Authorization Request Form (AARF)
- 45, 30, 15 day Pre-implementation meetings
 - Provide information
 - Assess readiness for training and implementation
- Training
 - Typically 3 – 5 days depending on facility size
 - Instructor led
 - PSM (8 hrs)
 - Reviewer/Investigator (4 hrs)
 - Web-based training available for all roles including reporter
- Implementation
 - Immediately following training

Planned Enhancements

- Version 10.2/11 Spring 2012
- Overall enhancements
 - Approval status fields
 - Type ahead
 - Enhanced e-mail notifications
 - User management
- Improvements to Searching and Reporting
 - Extra fields
 - Stacked bar, stoplight, gauges, change orientation etc
 - Define listing reports

Implementation Challenges

- Transparency and Trust
- Three MHS services with very different cultures
- Overcoming change inertia
- Existing reporting culture
- Expectation management
 - Customization versus Standardization
- Transition to standardization
 - Agreement to a taxonomy
 - Appropriate use of that taxonomy
 - Efforts to ease the transition
- Increased workload on our patient safety managers (officers)
- Aggressive (8-month) full deployment schedule

Reporting Culture Shift

Change is difficult:

- Shift from paper-based reporting, electronic reporting system (in pharmacy community)
- Information capture different from “tick mark reporting” or text-based reporting
- Altering individual facility reporting processes, standardizing reporting across the system
- Analyses capability on event level data

Lessons Learned

- Leadership engagement
- User Buy-in
- Methods to accelerate process
 - Open Communication: “PSR Talk” (formatted after NPR’s “Car Talk”)
 - Other webinars
 - AHRQ-based Harm Scale
 - Causal Factors
 - Reporting
- Understanding implications of reporting culture shift from paper-based to web-based
- Importance of getting the site hierarchies correct

PSR Success Story

- Service successes
 - 4-52% increase in reporting
 - Broadened number of reporters
 - New staff involvement - significant increase in reporting
 - Already using the data to make change
 - Leadership engagement
 - Service/site level ownership

Conclusions

- Have a system that provides the data granularity necessary to implement change and make our facilities safer for our patients
- Have leadership engagement and user buy-in
- Aggressive implementation plan has remained on tight schedule
- Good functional/IT community partnership
- Good Government/Vendor partnerships

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